

	Document ID	Issue Date	Pages	Title	Current OR
1	US 20060176973 A1	20060810	148	Vertical adaptive antenna array for a discrete multitone spread spectrum communications system	375/267
2	US 20060034166 A1	20060216	26	Apparatus and method for symbol alignment in a multi-point OFDM/DMT digital communications system	370/208
3	US 20050281346 A1	20051222	8	Method and system of tone ordering for discrete multi-tone systems with tone grouping	375/260
4	US 20050053229 A1	20050310	44	Common mode noise cancellation	379/406.01
5	US 20050002440 A1	20050106	147	Vertical adaptive antenna array for a discrete multitone spread spectrum communications system	375/141
6	US 20040246890 A1	20041209	29	OFDM/DMT/ digital communications system including partial sequence symbol processing	370/210
7	US 20040240464 A1	20041202	11	Method of transmitting data to reduce bit errors in communication systems	370/438
8	US 20040213293 A1	20041028	17	Bit and power allocation scheme for full-duplex transmission with echo cancellation in multicarrier-based modems	370/480
9	US 20040156264 A1	20040812	15	Downhole telemetry system using discrete multi-tone modulation in a wireless communication medium	367/81
10	US 20040141548 A1	20040722	31	Software adaptable high performance multicarrier transmission protocol	375/146
11	US 20030231700 A1	20031218	148	Vertical adaptive antenna array for a discrete multitone spread spectrum communications system	375/144
12	US 20030156603 A1	20030821	149	Apparatus and method for trellis encoding data for transmission in digital data transmission systems	370/485
13	US 20020176544 A1	20021128	6	Method and apparatus for monitoring channel frequency response	379/22.08

	Current XRef	Inventor
1	375/148; 375/260	Alamouti; Siavash et al.
2		Marchok; Daniel J. et al.
3		Redfern, Arthur J.
4		Tsatsanis, Michail Konstantinos et al.
5		Alamouti, Siavash et al.
6		Marchok, Daniel J. et al.
7	370/471	Fite, Wayne Charles
8		Basso, James et al.
9		Gardner, Wallace R. et al.
10	375/260	Shattil, Steve J.
11		Alamouti, Siavash et al.
12	348/E7.07	Rakib, Selim Shlomo et al.
13	379/22; 379/22.02	Liu, Gin et al.

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14	US 20020159506 A1	20021031	148	Vertical adaptive antenna array for a discrete multitone spread spectrum communications system	375/147
15	US 20020044597 A1	20020418	21	Spread spectrum bit allocation algorithm	375/222
16	US 20020034160 A1	20020321	28	Apparatus and method for symbol alignment in a multi-point OFDM/DMT digital communications system	370/208
17	US 20020015423 A1	20020207	148	Apparatus and method for trellis encoding data for transmission in digital data transmission systems	370/485
18	US 20010046266 A1	20011129	149	Apparatus and method for scdma digital data transmission using orthogonal codes and head end modem with no tracking loops	375/259
19	US 20010024474 A1	20010927	149	Apparatus and method for trellis encoding data for transmission in digital data transmission systems	375/259
20	US 20010001616 A1	20010524	149	Apparatus and method for SCDMA digital data transmission using orthogonal codes and a head end modem with no tracking loops	375/259
21	US 7133419 B1	20061107	26	System and method for reducing power consumption by spectral shaping of signals	370/468
22	US 7095707 B2	20060822	127	Apparatus and method for trellis encoding data for transmission in digital data transmission systems	370/204
23	US 7068592 B1	20060627	35	System and method for increasing payload capacity by clustering unloaded bins in a data transmission system	370/203
24	US 7061969 B2	20060613	145	Vertical adaptive antenna array for a discrete multitone spread spectrum communication system	375/147

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14		Alamouti, Siavash et al.
15	370/344; 375/260	Shively, Richard Robert et al.
16	370/504; 375/260	Marchok, Daniel J. et al.
17	348/E7.07; 370/487; 370/503; 370/516	Rakib, Selim Shlomo et al.
18	348/E7.07; 375/354; 375/371	Rakib, Selim Shlomo et al.
19	348/E7.07; 375/354	Rakib, Selim Shlomo et al.
20	375/344	Rakib, Selim Shlomo et al.
21	370/208; 370/252; 375/220; 375/222	Hendrichs; Laurent et al.
22	348/E7.07; 375/265	Rakib; Selim Shlomo et al.
23	370/484	Duvaut; Patrick et al.
24	375/150; 375/347	Alamouti; Siavash et al.

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25	US 7058141 B1	20060606	22	MLSE decoding of PRS type inter-bin interference in receiver-end windowed DMT system	375/341
26	US 7031344 B2	20060418	131	Apparatus and method for SCDMA digital data transmission using orthogonal codes and a head end modem with no tracking loops	370/479
27	US 7020165 B2	20060328	129	Apparatus and method for trellis encoding data for transmission in digital data transmission systems	370/485
28	US 6973122 B1	20051206	12	Power allocation scheme for DMT-based modems employing simplex transmission	375/222
29	US 6963603 B1	20051108	10	Method and apparatus for pre-compensation of an XDSL modem	375/222
30	US 6950388 B2	20050927	25	Apparatus and method for symbol alignment in a multi-point OFDM/DMT digital communications system	370/208
31	US 6937617 B2	20050830	129	Apparatus and method for trellis encoding data for transmission in digital data transmission systems	370/485
32	US 6912194 B1	20050628	22	Digital communication transmission techniques	370/208
33	US 6895041 B1	20050517	12	Digital subscriber line power reduction	375/222
34	US 6856683 B1	20050215	15	Method for reducing noise from a non-linear device that shares a customer loop with an asymmetric digital subscriber line modem	379/390.01
35	US 6804192 B1	20041012	31	OFDM/DMT digital communications system including partial sequence symbol processing	370/210
36	US 6782039 B2	20040824	146	Vertical adaptive antenna array for a discrete multitone spread spectrum communications system	375/147

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25	375/260; 714/795	Nedic; Slobodan
26	370/509; 370/516; 370/519; 375/368	Rakib; Selim Shlomo et al.
27	348/E7.07 ; 370/342; 370/509	Rakib; Selim Shlomo et al.
28		Miller II; Robert Raymond et al.
29	370/206; 370/248; 375/232; 375/260; 375/295	Rezvani; Behrooz et al.
30	370/503	Marchok; Daniel J. et al.
31	348/E7.07 ; 370/479	Rakib; Selim Shlomo et al.
32	370/490; 375/260	Marchok; Daniel J. et al.
33	375/219	Mccullough; Jason F. et al.
34	379/1.03; 379/392.0 1	Murphy; Tim et al.
35	370/484; 375/240; 375/347	Marchok; Daniel J. et al.
36	375/150; 375/347	Alamouti; Siavash et al.

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37	US 6765989 B1	20040720	14	Method for optimizing downstream data transfer in an asymmetric digital subscriber line modem	379/22.08
38	US 6711207 B1	20040323	17	System and method for reduced power consumption in digital subscriber line modems	375/222
39	US 6665308 B1	20031216	136	Apparatus and method for equalization in distributed digital data transmission systems	370/441
40	US 6628754 B1	20030930	22	Method for rapid noise reduction from an asymmetric digital subscriber line modem	379/1.03
41	US 6628735 B1	20030930	12	Correction of a sampling frequency offset in an orthogonal frequency division multiplexing system	375/355
42	US 6600776 B1	20030729	144	Vertical adaptive antenna array for a discrete multitone spread spectrum communications system	375/147
43	US 6587502 B1	20030701	15	System and method for profile selection during fast retrain of a wideband modem	375/222
44	US 6584144 B2	20030624	143	Vertical adaptive antenna array for a discrete multitone spread spectrum communications system	375/147
45	US 6556623 B2	20030429	18	Systems and methods for a multi-carrier transceiver with radio frequency interference reduction	375/224
46	US 6546056 B1	20030408	15	Timing recovery in a multi-tone modem	375/260

	Current XRef	Inventor
37	375/224; 375/225; 375/227; 379/1.03; 379/27.01	Murphy; Tim et al.
38	375/219; 375/224; 375/259	Amrany; Daniel et al.
39	370/442; 370/479; 370/503; 375/222; 375/233	Rakib; Selim Shlomo et al.
40	370/252; 370/286; 370/493; 379/22.02; 379/24; 379/32.04	Murphy; Tim et al.
41	370/203; 370/503	Belotserkovsky; Maxim B. et al.
42	375/150; 375/349	Alamouti; Siavash et al.
43	375/295	Hendrichs; Laurent et al.
44	375/150; 375/347	Alamouti; Siavash et al.
45	375/260; 375/346	Tzannes; Marcos C. et al.
46	375/364	Rosenlof; John R.

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47	US 6516027 B1	20030204	16	Method and apparatus for discrete multitone communication bit allocation	375/227
48	US 6473394 B1	20021029	34	Apparatus and method for bandwidth management in a multi-point OFDM/DMT digital communications system	370/208
49	US 6356555 B1	20020312	110	Apparatus and method for digital data transmission using orthogonal codes	370/441
50	US 6307868 B1	20011023	127	Apparatus and method for SCDMA digital data transmission using orthogonal codes and a head end modem with no tracking loops	370/485
51	US 6285654 B1	20010904	30	Apparatus and method for symbol alignment in a multi-point OFDM or DMT digital communications system	370/208
52	US 6144696 A	20001107	16	Spread spectrum bit allocation algorithm	375/222
53	US 6141317 A	20001031	32	Apparatus and method for bandwidth management in a multi-point OFDM/DMT digital communications system	370/208
54	US 6134274 A	20001017	11	Method and apparatus for allocating data for transmission via discrete multiple tones	375/295
55	US 6122247 A	20000919	12	Method for reallocating data in a discrete multi-tone communication system	370/210
56	US 6118758 A	20000912	26	Multi-point OFDM/DMT digital communications system including remote service unit with improved transmitter architecture	370/210

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47	379/296	Kapoor; Samir et al.
48	375/261	Marchok; Daniel J. et al.
49	348/E7.07; 370/442; 370/478; 370/479; 370/480; 370/503	Rakib; Selim Shlomo et al.
50	348/E7.07; 370/516; 375/325; 375/326	Rakib; Selim Shlomo et al.
51	370/504; 375/260	Marchok; Daniel J. et al.
52	370/358; 370/391; 375/225	Shively; Richard Robert et al.
53	370/207; 375/261	Marchok; Daniel J. et al.
54	375/254; 375/260; 375/296; 704/200; 704/229	Sankaranarayanan; Lalitha et al.
55	370/484; 375/260	Levin; Howard E. et al.
56	370/484; 370/490	Marchok; Daniel J. et al.

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57	US 6108349 A	20000822	36	Method and apparatus for registering remote service units in a multipoint communication system	370/465
58	US 6002664 A	19991214	16	Method to gain access to a base station in a discrete multitone spread spectrum communications system	370/207
59	US 5991308 A	19991123	161	Lower overhead method for data transmission using ATM and SCDMA over hybrid fiber coax cable plant	370/395.5 3
60	US 5790514 A	19980804	23	Multi-point OFDM/DMT digital communications system including remote service unit with improved receiver architecture	370/208
61	US 6144696 A	20001107	16	Bit allocation method for discrete multitone transmission (DMT) of data by digital subscriber loop (DSL) modems, comprises allocating bits up to maximum power level for each data channel frequencies	

	Current XRef	Inventor
57		Melsa; Peter J. W. et al.
58	370/210; 370/320; 370/335; 375/141; 375/350	Schachter; Paul Joseph
59	348/E7.07; 370/342; 370/395.52; 370/395.65; 370/474	Fuhrmann; Amir Michael et al.
60	370/210; 375/260; 375/316	Marchok; Daniel J. et al.
61		SHIVELY, R R et al.